

Using Data and Data Visualization to Improve Equity in Program Participation

Michele Walsh, PhD, Kara Haberstock Tanoue, MA, Madeleine deBlois, ScD, Violeta Dominguez, MA

Arizona Cooperative Extension

"Improving Lives, Communities and the Economy"

A statewide non-formal education network bringing research-based information into communities

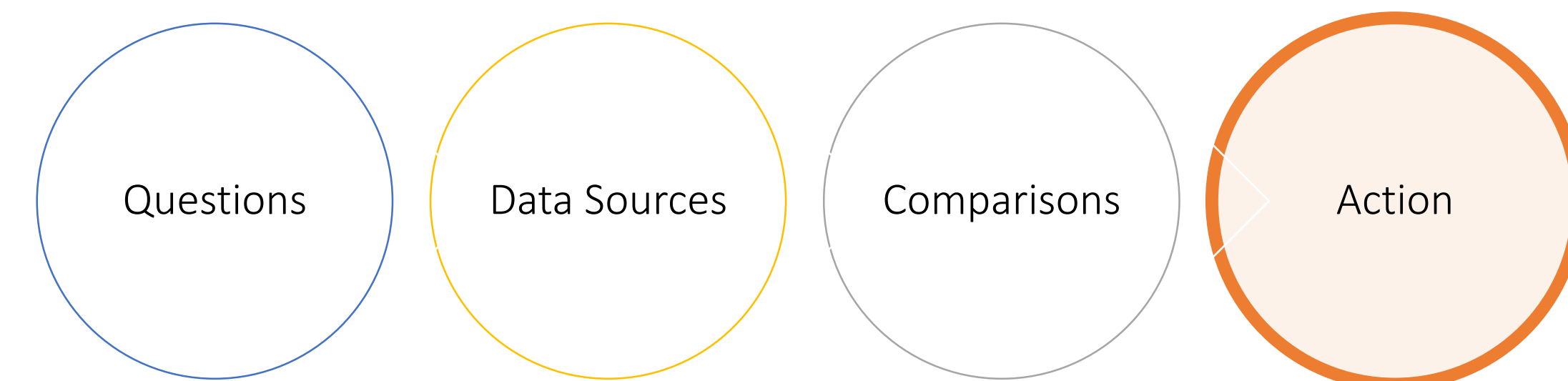


A cooperative effort between the federal government, the University of Arizona's College of Agriculture and Life Sciences, each of the 15 counties in the state, and with 5 tribes.

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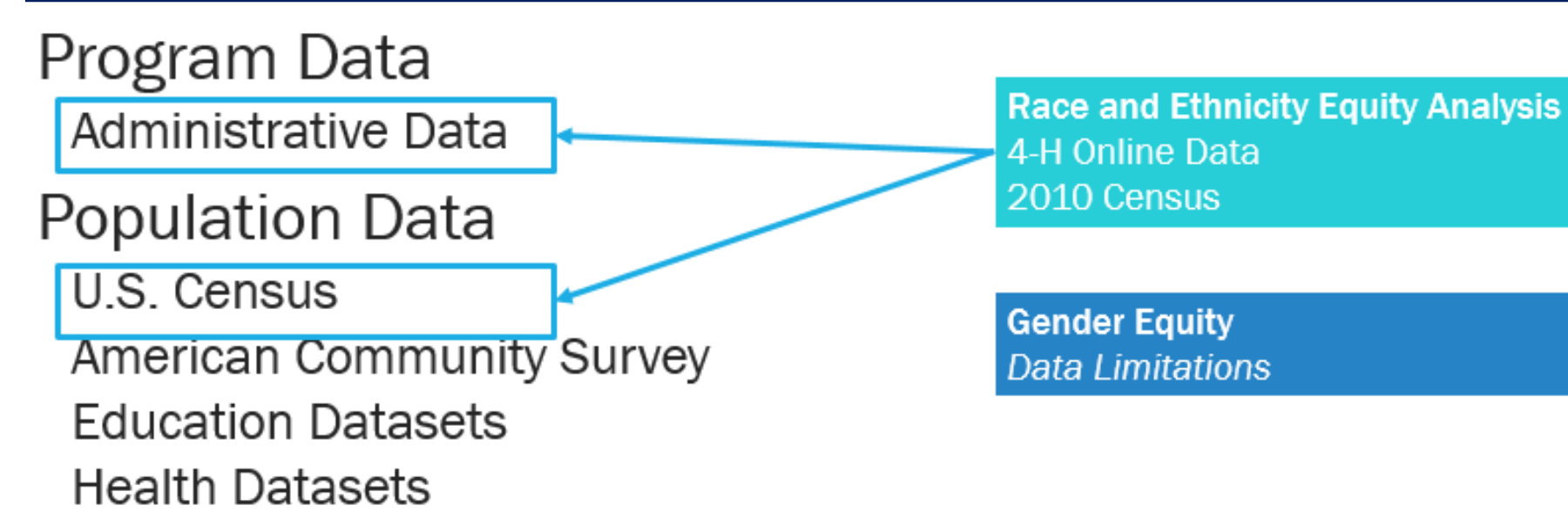
Compliance reviews for land grant institutions on a 5-year basis

Creating Equity Visualization Tools



- Questions**
 - Are there disparities?
 - Where are these disparities happening?
- Data Sources**
 - Program Data
 - Population Data
- Comparisons**
 - Community Level
 - County Level
 - State Level
- Action**

Data Sources



What variables are available?

Age	Years in 4-H	School Type
Race	Military Family	Sex (M/F)
Ethnicity	Project Type	Primary Club

What geographic identifiers are available?

County	School District
Zip Code	

Variables we don't have:

- Gender Identity
- Specific Ethnicity and Race Categories

Our goal is to compare **apples to apples** as much as possible

- Age groups**
 - 4-H Programs: Ages 5-19 (Cloverbuds to High School)
 - Census Data: Ages 5-19
- Category Definitions**
 - 4-H Data: Separate Race and Ethnicity Status
 - Census Data: Limited Race/Ethnicity Combinations for specific age groups and geographies
- Geographic Definitions**
 - 4-H Data: Postal ZIP Codes, Counties
 - Census Data: ZIP Code Tabulation Areas (ZCTAs), Counties

Action

At the organizational level

- Recognize and identify systemic barriers that may lead to institutionalized inequity
- Leadership reemphasizes a culture of inclusion
- Examine recruitment and hiring processes
- Provide ongoing training to raise awareness and facilitate action

At a personal level

- Recognize and identify local barriers
- Face conscious and unconscious bias

Specific to the programming we were looking at

- Consider the definitions of club and group programs
- Include youth perspectives in program development
- Outreach and training for adult volunteers with interests and skills aligned with youths'
- Design and communicate the benefits of 4-H for a new generation
- Communities of Practice to address equity

More broadly

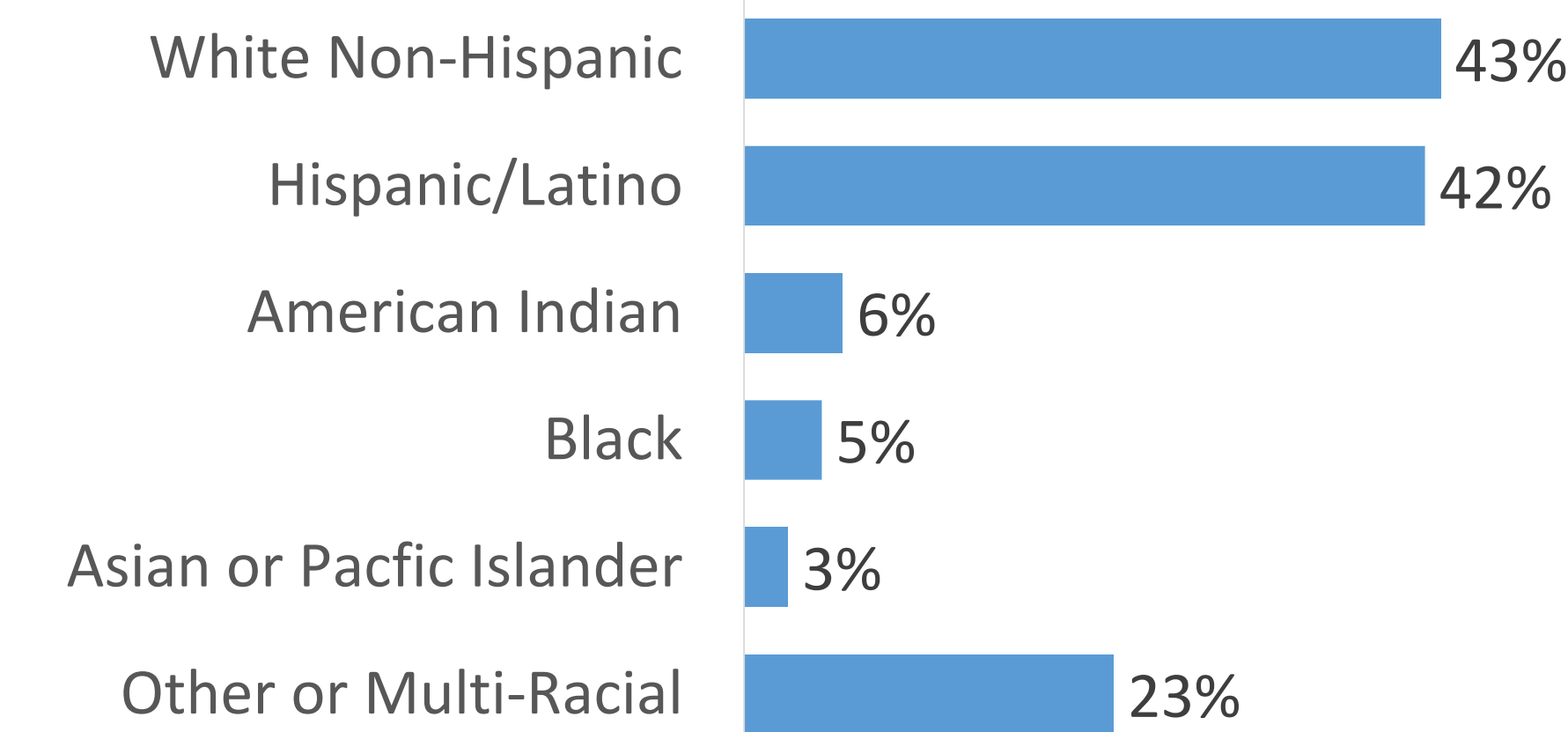
- Develop data systems and processes to be able to identify disparities and to monitor change over time

Arizona 4-H

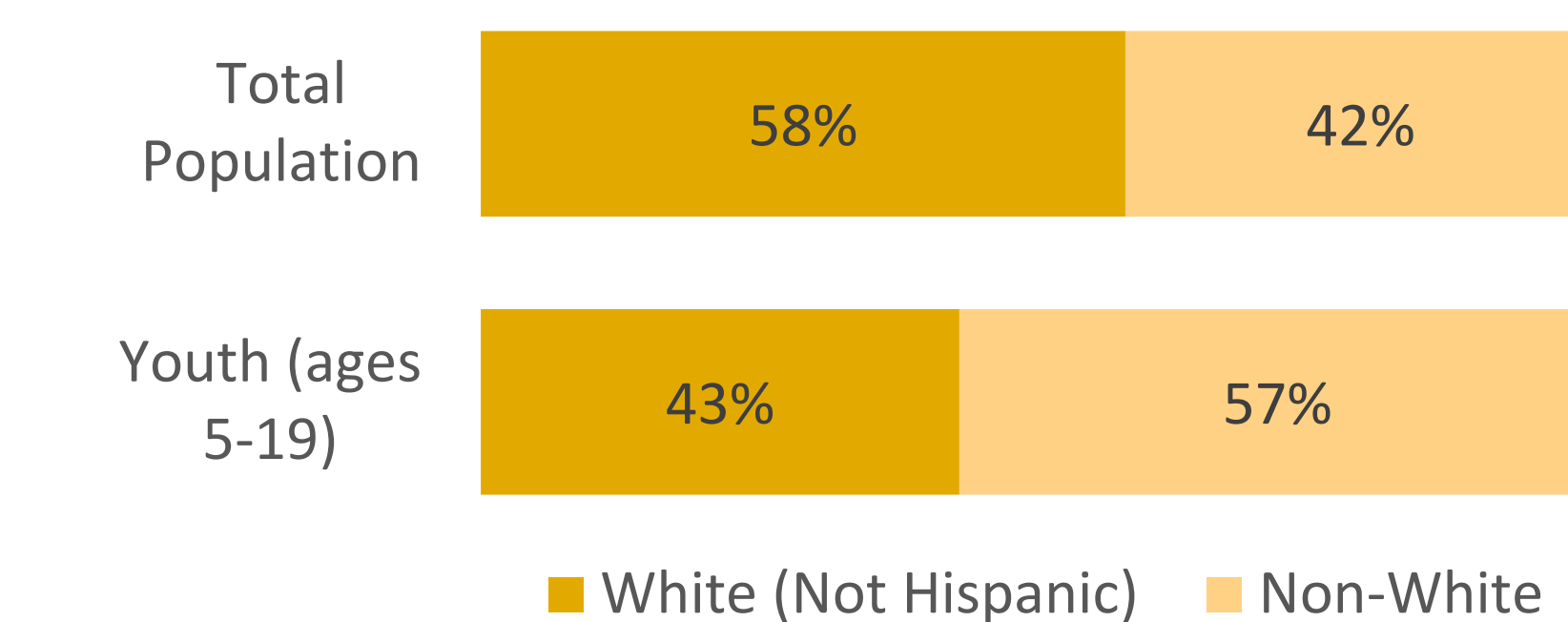
Programs in 15 counties across Arizona and offices on 5 reservations

Mission: To improve lives, communities and the economy by *inspiring the next generation of leaders, inventors, entrepreneurs and problem solvers . . . transforming the ordinary into the extraordinary.*

Most Arizona youth (ages 5-19) are White or Hispanic or Latino.



The demographic composition of Arizona's youth is the inverse of the overall population.



Club Programs

- 4,660 youth enrolled in 2015-2016
- 200 Active Clubs
- 91 Project Types

Group Programs

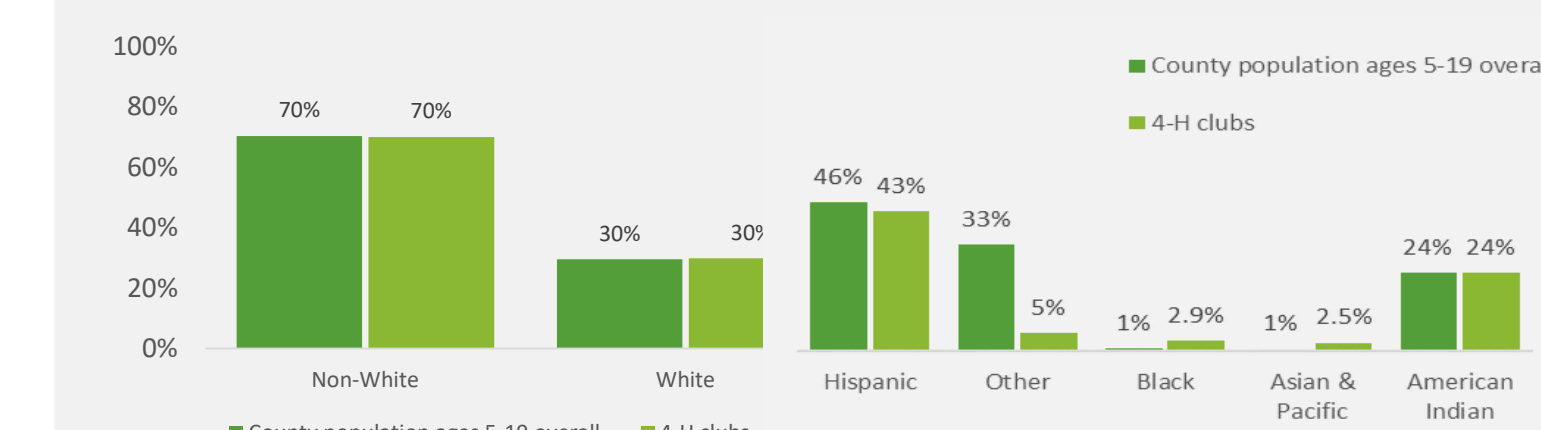
- 137,064 youth* enrolled in 2014-2015
- 434 programs
- Varying program hours:
 - **384** of 434 programs operated for 10 hours or less
 - **24** of 434 programs operated for 40 hours or more

*not unique participants

Comparisons

1. Comparing the racial and ethnic composition of counties to county programs

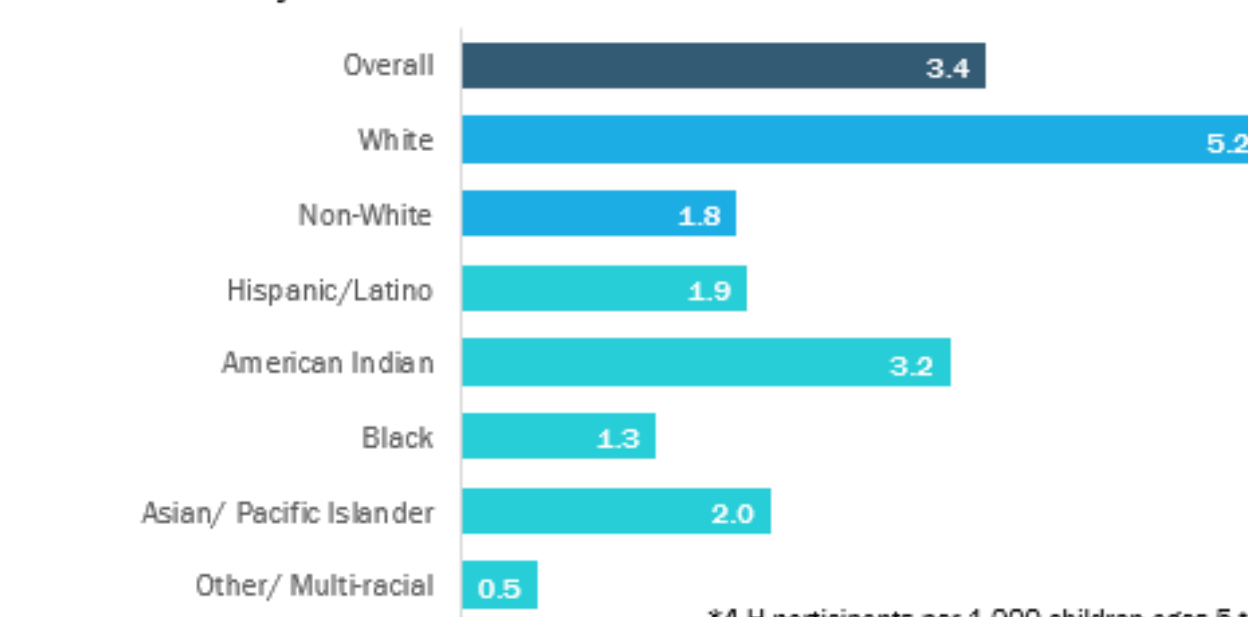
Non-White youth, including Hispanic and American Indian youth, are well-represented in 4-H clubs in La Paz County. The "other" category includes youth who may have been identified as multi-racial.



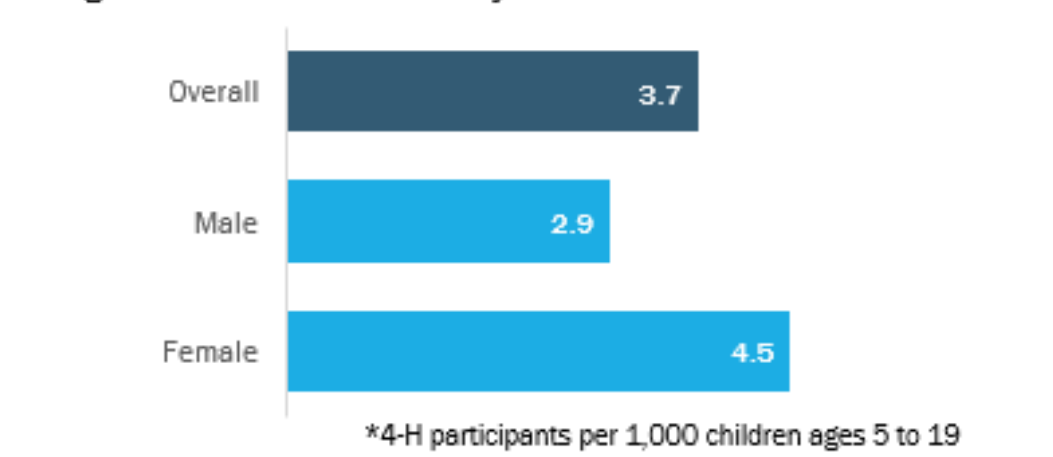
Note: Hispanic is a non-exclusive category due to the nature of Census data available

2. Comparing participation rates by race, ethnicity, and sex.

Participation rates* among white youth are nearly three times that of non-white youth in Arizona 4-H.

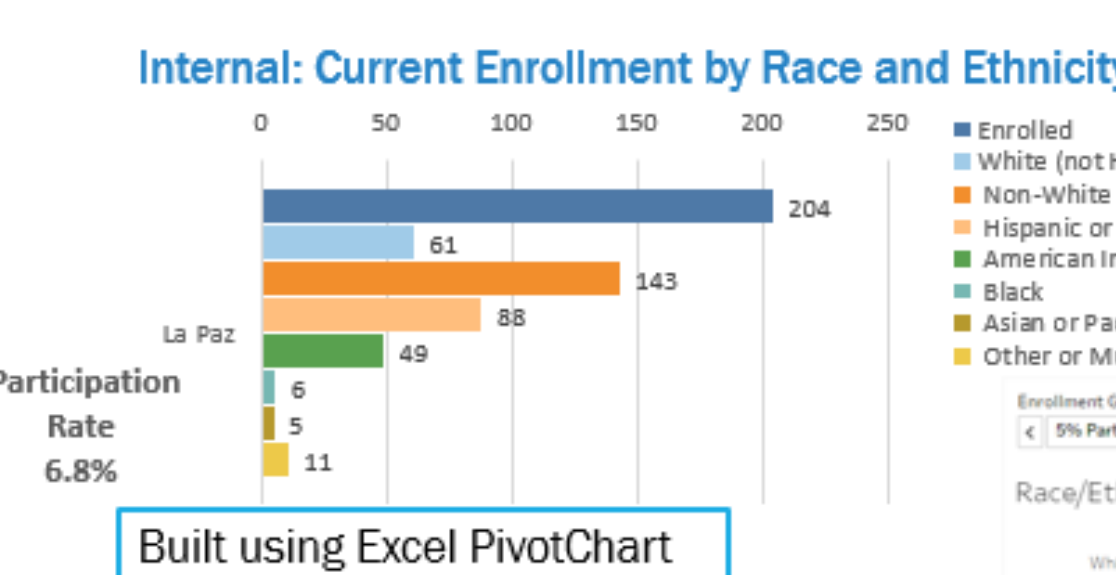


Participation rates* for female youth are much higher than that for male youth in Arizona 4-H.



Note: Hispanic/Latino is an inclusive category due to the nature of Census data available

3. Comparing raw enrollment numbers

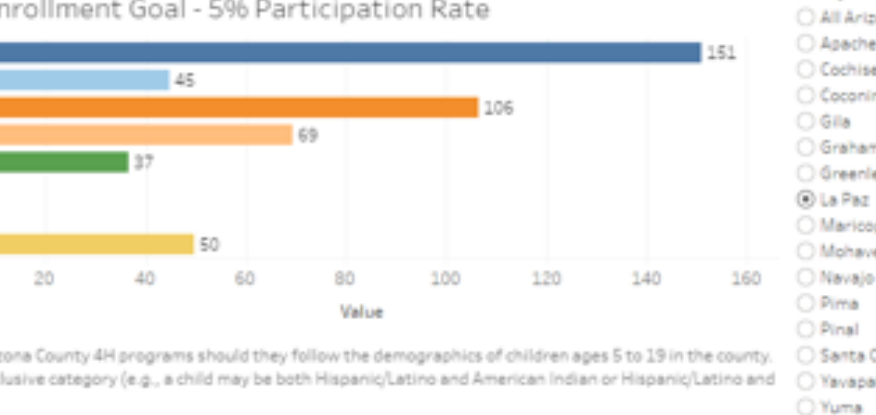


Built using Excel PivotChart

Goal Setting Tool: What county programs would look like if equity was achieved at current participation rates

Built using Tableau <http://bit.ly/4-HtoolAZ>

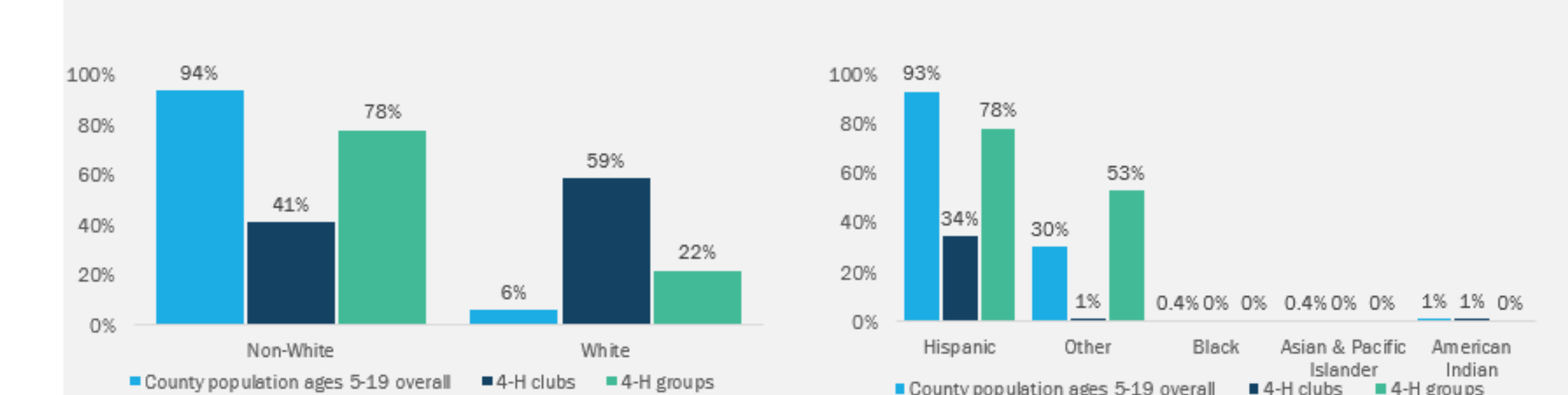
External: County Enrollment Goals



Sources: 2010 U.S. Census; 4-H Club data for program year 2016

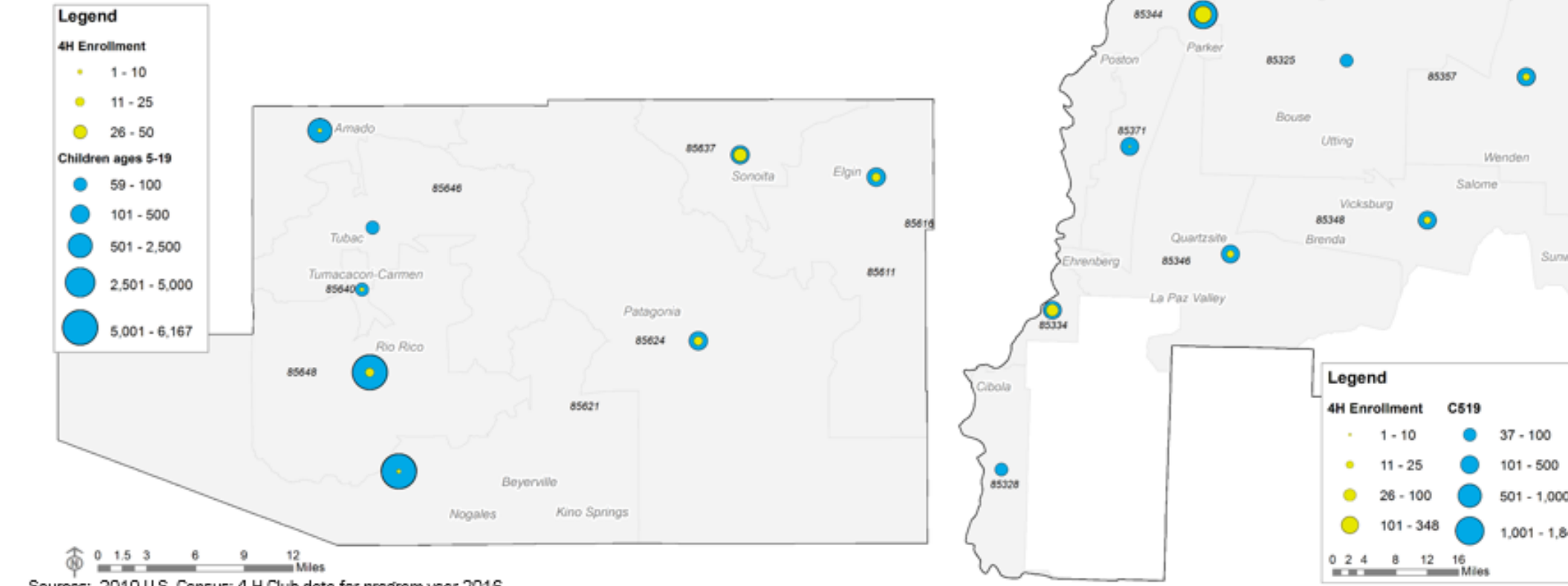
4. Comparing Club and Group program enrollment

Participation of Hispanic students is low in most of the local clubs compared to group programs. Rates of Hispanic youth participation is twice as high in group programs as in club programs.



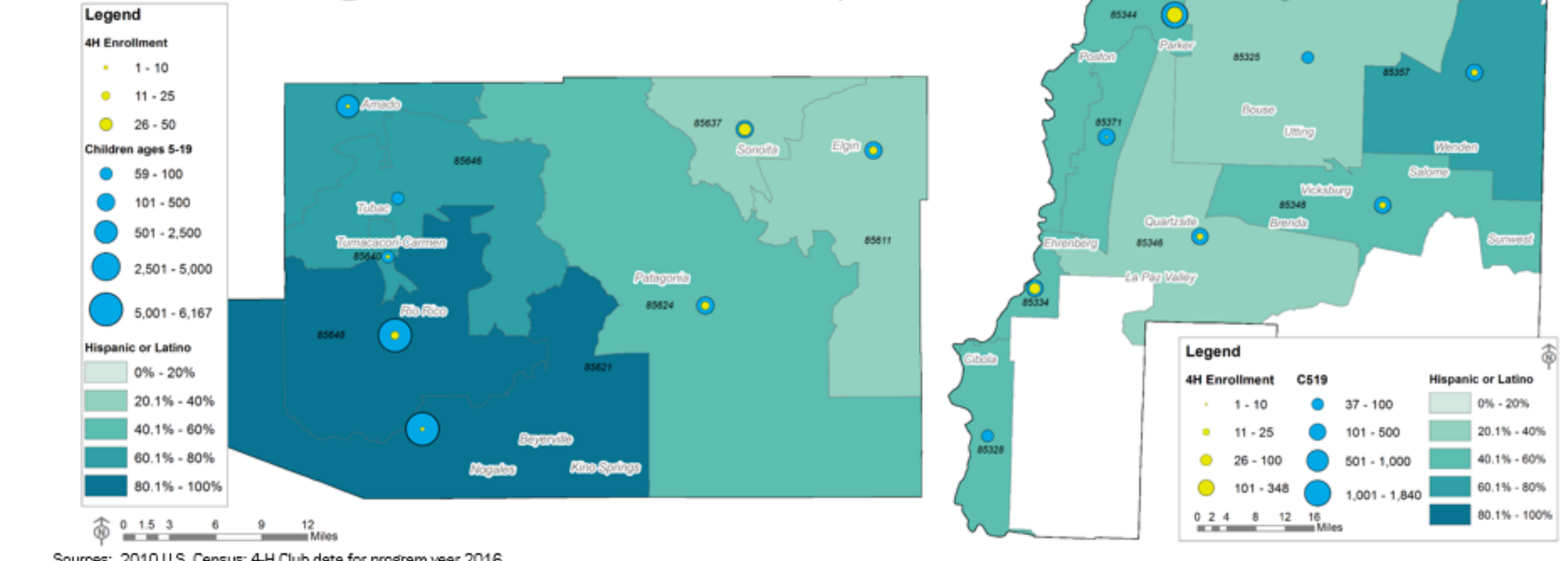
Sources: 2010 U.S. Census; 4-H Club data for program year 2016; 4-H Group data for program year 2015

6. Examining the distribution of 4-H Participants



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